AUTODOC CLUB

# How to change front strut mount on **BMW X5 E53** – replacement guide

## VIDEO TUTORIAL




**Important!**

This replacement procedure can be used for:
BMW X5 (E53) 3.0 d, BMW X5 (E53) 4.6 is, BMW X5 (E53) 3.0 i, BMW X5 (E53) 4.4 i

The steps may slightly vary depending on the car design.

# REPLACEMENT: STRUT MOUNT – BMW X5 E53. TOOLS YOU NEED:




- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #19
- Combination spanner #21
- Combination spanner #22
- Drive socket # 10
- Drive socket # 13
- Drive socket # 22
- HEX bit no.H5.
- HEX bit no.H7.
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat Screwdriver
- Hydraulic strut spring compressor
- Fender cover
- Wheel chock

BUY TOOLS

Replacement: strut mount – BMW X5 E53. Tip:

- The replacement procedure is identical for the mounts of the left and right shock struts of the front suspension.
- All mounts of the front shock struts should be replaced simultaneously.
- Be sure to replace all self-locking nuts and bolts during installation.
- All work should be done with the engine stopped.

## REPLACEMENT: STRUT MOUNT – BMW X5 E53. USE THE FOLLOWING PROCEDURE:

1 Secure the wheels with chocks.



2 Loosen the wheel mounting bolts. Use wheel impact socket #17.



3 Raise the front of the car and secure on supports.

4

Unscrew the wheel bolts.



## AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. BMW X5 E53

5

Remove the wheel.




6

Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

7

Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #19. Use HEX No.H5. Use a ratchet wrench.



8

Remove the stabilizer rod.

**9** Detach the brake hose from the shock strut. Use a flat screwdriver.



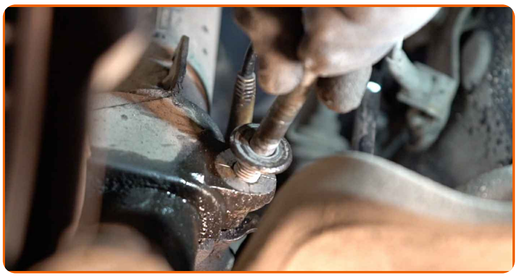
**10** Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



**11** Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22. Use a ratchet wrench.



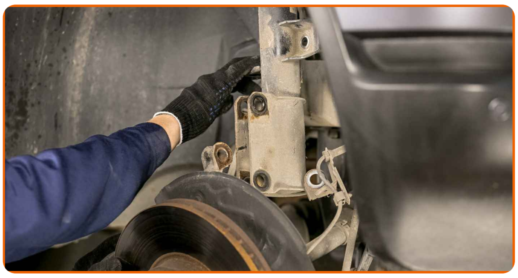
**12** Remove the fastening bolt.



**13** Disconnect the ABS sensor wiring.

**14** Remove the fastening bolt.

**15** Disconnect the steering knuckle from the shock absorber strut.



**Replacement: strut mount – BMW X5 E53. AUTODOC recommends:**

- Make sure that the steering knuckle is supported.

**16** Lower the car.

**17** Open the bonnet.



**18** Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

**19** Unscrew the bolts and remove the windshield washer tank. Use a drive socket #10. Use a ratchet wrench.



**20** Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.



**21** Unscrew the top fastening of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.



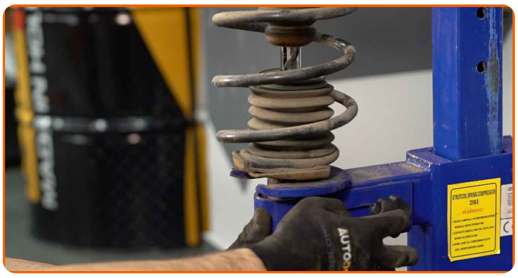
### Replacement: strut mount – BMW X5 E53. AUTODOC experts recommend:

- To avoid injuries, hold the shock strut when undoing the fastening bolts.

**22** Remove the suspension strut.



23 Set the shock absorber strut on the spring compressor tool.



Replacement: strut mount – BMW X5 E53. Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

24 Compress the spring.

25 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.

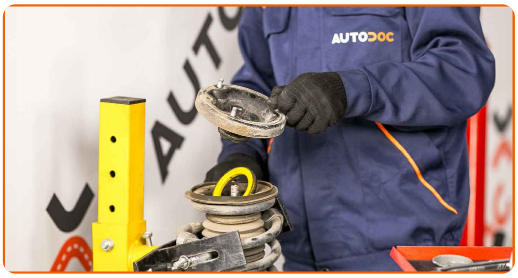


26 Remove the strut piston rod nut. Use a combination spanner #21. Use HEX No.H7.



27 Release the coil spring.

28 Remove the top strut mount. Use a flat screwdriver.




## Replacement: strut mount – BMW X5 E53. Tip from AUTODOC experts:

- Examine the shock absorber dust cap and the bump stop. Replace them if necessary.

29 Clean the mounting seat of the shock strut mount. Use a wire brush. Use WD-40 spray.

30 Install a new top shock strut mount.



**31** Tighten the shock strut piston rod nut. Use a combination spanner #21. Use HEX No.H7. Use a torque wrench. Tighten it to 60 Nm torque.



## Replacement: strut mount – BMW X5 E53. Tip from AUTODOC:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

**32** Decompress the spring.

**33** Remove the assembled shock strut.



**34** Install the shock strut into the wheel arch.

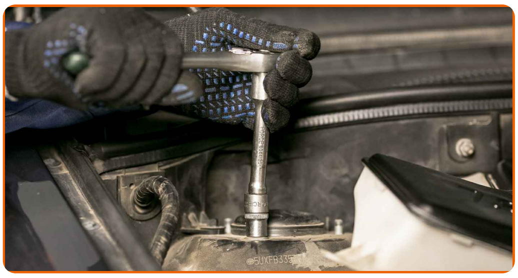


**35** Screw the top fastening of the shock strut mount.

## AUTODOC recommends:

- BMW X5 E53 – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

**36** Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 34 Nm torque.



**37.1** Install the windshield washer tank and tighten the bolts.



**37.2** Use a drive socket #10. Use a ratchet wrench.



**38** Remove the fender protection cover.

**39** Close the hood.



40 Raise the front of the car and secure on supports.

41 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



42 Fix the shock absorber strut on the steering knuckle.




43 Install the fastening bolt.



44 Connect the ABS sensor wiring.

45 Install the fastening bolt.



46 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22. Use a torque wrench. Tighten it to 250 Nm torque.

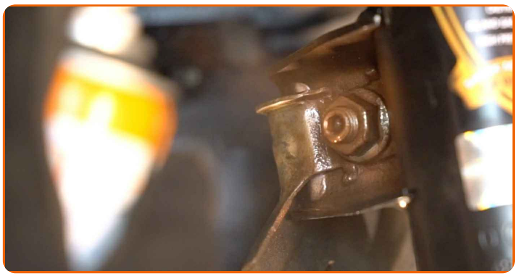


47 Install the transverse stabilizer link.

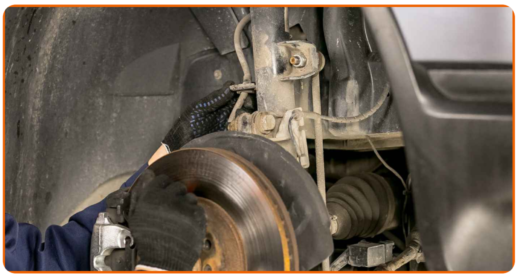
48 Tighten the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #19. Use HEX No.H5. Use a torque wrench. Tighten it to 65 Nm torque.



49 Treat the shock strut fasteners. Use copper grease.



50 Fasten the brake hose on the strut.



51

Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



52

Clean the brake disk surface. Use a brake cleaner.



**Replacement: strut mount – BMW X5 E53. Tip:**

- After applying the spray, wait a few minutes.

53

Install the wheel.



**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW X5 E53

54

Screw in the wheel bolts. Use wheel impact socket #17.



55

Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 140 nm torque.



56

Remove the jacks and chocks.

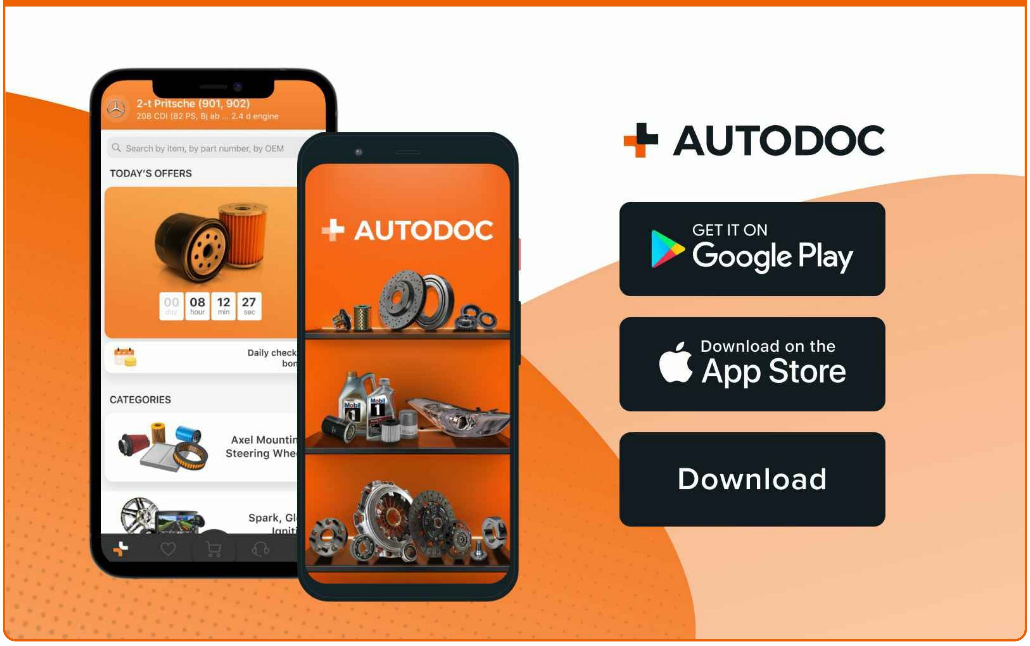


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